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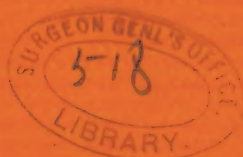
*Discussion on the Prevention and Communica-
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BEFORE THE

MICHIGAN STATE MEDICAL SOCIETY.

REMARKS BY

DR. E. L. SHURLY, Detroit.



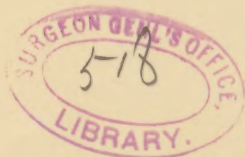
DISCUSSION ON THE PREVENTION AND COMMUNICABILITY OF PHTHISIS PULMONALIS, BEFORE THE MICHIGAN STATE MEDICAL SOCIETY.

REMARKS BY DR E. L. SHURLY,

DETROIT.

Mr. Chairman, Ladies and Gentlemen:

I have been exceedingly interested in the two papers that have just been presented for they are valuable papers. I cannot feel as pessimistic, however, as Dr. Novy and Dr. Baker. I think the other side of the question ought to be presented before any further legislative enactments are taken. These gentlemen take it for granted that phthisis pulmonalis is a communicable disease which ought to be classed with scarlet fever, diphtheria, etc. Undoubtedly, tuberculosis is a communicable disease, *by artificial inoculation*. There is no doubt about that! But so is tetanus and erysipelas! Why should not the legislature of the State, therefore, enact measures against the spread of tetanus or erysipelas—both of which are communicable by inoculation—and allow the Board of Health to include them in the list also? But, as I understand it, the communicable diseases, considered in a conventional sense, are those diseases which are communicated by mere contact of the healthy individual with the sufferer of disease; by indiscriminate contact, not by the process of inoculation. Such a type of communicable disease is small-pox. It is taken for granted by these gentlemen that these cases are *all* communicable through the inhalation of the tubercle bacillus emanating from dried sputum. It is taken for granted, I say. And one of the gentlemen, Dr. Baker, says that three thousand cases occur in the State of Michigan *through contagion* every year. But he does not give us any statistics to show how many of those cases have been actu-



ally acquired by personal communication. I, therefore, challenge the statement. I appeal to any practitioner in this room who has had ten or more years of practice, to decide whether three thousand cases have all arisen through the inhalation of sputum, or by contact with other consumptives. The statistics which have been presented to us on this subject are truly one-sided. No statistics have been presented to us to show how many of the three thousand cases contracted the disease through heredity, or after exposure to cold and incident to other diseases. Dr. Baker, in his paper, has told us that the rise in the number of these cases comes after influenza, diseases of the throat, and certain changes of the atmosphere or climate. One may theorize that almost any disease or condition is dangerous. We know that it is absolutely dangerous, and fatal, to inhale carbon dioxide in certain proportions. Don't we have carbon dioxide in the atmosphere all the time? Do we not have it in our own rooms? Does not the human body endure the inhalation of at least one per cent of carbon dioxide in the atmosphere? Certainly. Yet, if we inhale a larger amount, say five per cent. of carbon dioxide, we die. Wherefore, then, if there are a few tubercle bacilli spread in the air, should they be considered *the* cause of *all* of these three thousand cases of tuberculosis in the State of Michigan, independently of heredity, poverty, acute diseases of the air passages and other etiological factors? Not one word is said about hereditary tendency and other causes. The only cause given is *entirely* based on the fact (which is purely experimental), that these diseases are communicated by inoculation in the lower animals. It is also assumed that a large number of cases occur from the ingestion of milk and meat supposed to be tuberculous. Where is the proof? That great champion of this doctrine in the United States, Dr. Brush, has yet been unable to show by continuous facts that there is a great spread of tuberculosis by milk alone. Why, ladies and gentlemen, we have all been brought up more or less on cow's milk, and if such statements were true, the United States of America would be nearly depopulated by this time! If that were the case, or even if a large percentage of persons could contract phthisis through that medium, how apparent would be the

disastrous consequences! I cannot believe it, for I have (through the kindness of a veterinary surgeon) secured what was called tubercular milk, and have fed it to monkeys and guinea pigs week after week, as I could get it, without observing a case of tuberculosis in consequence. I therefore question whether such results often occur. Nature has been very kind in our defense. She has placed certain antiseptic or antidotal principles in our saliva or buccal mucus, and in the secretions of the stomach, of sufficient potency to destroy many of the independent poisons which might invade the stomach or respiratory system. I do not see why anybody should claim that phthisis pulmonalis is communicated by the ingestion of milk or meat absolutely. What we need upon this question are the facts! We want to know how many of these cases have come about *actually* by communication; and how many have come from bad living and *bad breeding*. Far better would it be for the State Board of Health and the Legislature to formulate some plan by which church and State would prevent those unholy marriages which bring forth such weaklings. [Applause.] Far better would it be to do that than endeavor to prove the enormous statement that three thousand cases of phthisis pulmonalis occur in this State from communicability *solely*. Speaking of the habitats of the poor, where hygiene is unknown, I would say that those who live in the smaller towns can have no adequate conception of the conditions surrounding the poor of the larger centers of population where two or three families, perhaps, live in two or three rooms. Such people have tuberculosis *ab initio* without communication with diseased people. Guinea pigs or rabbits who are put in damp, dark cellars and illy fed have tuberculosis, also, very readily. I remind you of the important experiments of Dr. Trudeau, and others of healthy rabbits put under unhealthy surroundings that have died of tuberculosis. And this brings me to the consideration of the real value of experiments on animals. Now, I have not made any such extensive experiments with dust as Dr. Cornet or Dr. Flick, but I have made a few which seem to show these results:—that if you put dust from any room, which has been occupied by tuberculous patients, into guinea pigs or rabbits which have been illy fed, or have been confined in dark,

unsuitable places—animals which are *sick*, you will always find tuberculosis produced. I have put dust into guinea pigs from rooms occupied by tuberculous patients (especially for experiment), and dust taken from a house where there has never been—excepting perhaps momentarily—a tuberculous person, and have observed no ill effects from either experiment. Why? Because the pigs *were healthy*.

You may have observed that the majority of the guinea pigs, rabbits, mice, and rats, that are found in the laboratories over the country, are not very well cared for and are not healthy. Again, a healthy guinea pig (it matters not what you inoculate him with), if he survive the first septic fever, may die of tuberculosis. And yet, we are asked to accept all these experiments, such as those of Flick and Cornet, as *proof positive* against the clinical observations of years. I have been treating tuberculous patients for perhaps twenty-five years, and I have only seen about seven cases that I could go before a jury and swear were cases which originated wholly from exposure to or communication with other tuberculous patients. Now, if you will analyze, clinically, many of the cases that appear to be due to contagion, examine their family and domestic history, and surrounding circumstances, you will find generally abundant proof that the tubercle bacillus was not the *sole* cause. You must remember that this disease has been the fate of man and the anthropoids since “the creation.” The wild monkeys of Africa and Asia have tuberculosis of the lungs. Do they communicate it to one another by means of sputum? No, for they do not expectorate. Can they communicate it by inoculation? Probably not, for they have no hypodermic syringes, so far as known at present. How then does the disease spread among them? For it has been observed by zoologists and naturalists that quite a number acquire the affection. It seems to me that it must come through heredity. When you confine such animals in unhygienic surroundings, they are almost sure to die of tuberculosis. In fact, it is the most common mode of death. I do not deny that they may contract the disease from inhalation of dried sputum artificially, for I have so produced tuberculosis in them by insufflation of dried sputum; but it took many days, or

weeks, of daily blowing of the stuff into their cages; while at the same time they were confined and unable to get ordinary exercise. But who can say that human beings contract the disease in that way ordinarily? Nobody goes around blowing dried sputum into our mouths or faces in sufficient quantity to overcome the action of the secretions of the mouth and nose in neutralizing it. Why is it that, in most all of the cases (if you trace carefully the clinical history), you will eventually find that there has been some antecedent disease *before* the so-called tuberculosis? And among the most common, of late, to be found is influenza, which has been spoken of.

Dr. Novy says that the tubercle bacilli do not surround us in large quantities. Undoubtedly, that is true. I believe he is right; and, therefore, if not in great quantity, they are probably incapable alone of producing the disease. Koch made the statement that sun-dried sputum was innocuous, but Rosenberg, completing those experiments, and others, showed that sun-dried sputum, the same as sputum dried in other ways, might produce the disease. Now, to go back to the main questions. We want, first, facts to show whether phthisis pulmonalis is communicable, in the sense that scarlet fever, diphtheria, and small-pox are communicable. If it can be shown by the State Board of Health that this is so, then I think the whole profession will go the full length in aiding the Board in processes of isolation, but if they can't show the fact that it is so communicable; that is, if they can't exclude the etiological factors of hereditary predisposition, bad habits, or surroundings of the patients, the influence of previous diseases or accidents, etc., it seems to me that it is going too far to ask that these patients be *isolated*, "*tabooed*," dismissed from employment, and treated with suspicion. As to the question of a State Hospital for tuberculous patients, I don't think that there is anything practicable about it, judging from my own experience. It is all we can do at the hospital in Detroit, with which I am connected, to keep patients with phthisis pulmonalis for even two or three weeks. They are a restless class of individuals. They do not wish to stay anywhere long, and, if they be poor and the State takes care of them, they will be still more restless and more exacting,

besides being pauperized together with their families. The better class of people, of course, won't go to a State Hospital. What the State, perhaps, might better do, is to have a fund with which to send them to a more favorable climate, where they may have favorable occupation, give them proper food to eat, and better raiment to wear. That would be more practicable. The poor people, as we find them in the large cities, contract phthisis pulmonalis less from contact with other cases, in or about their hovel, than from the physical wants and privations, which there seems at present to be no power to supply; again, instead of multiplying the institutions, by having one for "consumptives," it would be much cheaper and far better to furnish means by which these poor people could be better taken care of at their homes. The reason I speak thus, is because in the cities there seems to be nothing provided for poor chronic patients but the county-house. Now, poverty is very inconvenient, but it is no disgrace, and the public should not menace the dignity of manhood by saying to every unfortunate, indigent sick individual, you may go to the county-house, nothing else! And that seems to be the only provision made for these people, who are too poor and too sick to support their families. (I omitted to mention the old citation about the spittoon inoculation case, and a few other inoculation cases, from cuts, which are too well known, and too imperfectly reported to deserve analysis.)

Now, a word about hasty conclusions. I have, for years, been in the habit of cross-examining patients upon certain leading questions. The first, perhaps, is about the family history. If I think they are lying—and most consumptives lie, although they don't mean to—I get the evidence from some member of the family or friend. I find out what members of the family have been affected, if any. If I find that two or three relatives, such as brothers, sisters, uncles, aunts, cousins, father or mother, have been affected, I then ascertain whether any or all of them have *lived* together. Very often it is ascertained that they have not. Now, under the doctrine, which has been given us this afternoon, such investigation would count for little. If a given patient (A), is suffering from phthisis pulmonalis, has lost a sister while living in Mexico, a brother living, for

years, in Texas, another brother living in Scotland, how could that man have contracted tuberculosis from either of these deceased relatives? Yet, that, or a similar history, will be found over and over again belonging to such cases, and it shows clearly the law of heredity. Besides, there are other facts that ought to be brought out. We should learn how many members of these sufferers' families, who have been exposed to them, do not contract phthisis pulmonalis; wives, sometimes, soon follow their husbands, by dying of phthisis. But I ask any practitioner, if he or she does not know of many wives, who have gone without sleep and food, and fresh air, in the care of tyrannical and irascible husbands, suffering from consumption (thus putting themselves in the best possible condition for contracting any disease), who, have notwithstanding all this, lived a long time in good health, never having contracted phthisis. You may say that such instances are freaks of immunity. Well, then I must say, such freaks are very common. I am not discussing the relation between immunity and the tubercle bacilli in the production of disease; I am only questioning the potency of the tubercle bacilli *alone*. I do not think, ladies and gentlemen, that there is sufficient proof that the ordinary spread of phthisis pulmonalis is through inoculation of the tubercle bacillus, and therefore that strict isolation, and placarding of houses is necessary, or advisable. Suppose, for instance, that a poor widow, who lives by the income from renting her two little houses, should have rented them to people having coughs, and that some officious doctor, thinking to have found tubercle bacilli, in either house, or in the sputum of any of the tenants, should report them to the Board of Health, and the Board of Health puts placards on the house, reading: "*Consumption here.*" The poor widow's means of livelihood is gone for a long time, for the prejudice of the people against such premises will last, perhaps, for a year or two. Again, suppose a house is placarded "*Consumption here,*" which is the home of a man, working in a tin-shop, along with five or six others; when some Saturday night comes around, he gets a hint that his services are not wanted there any longer. He may then be unable to get work elsewhere because of this, and becomes, finally, a pauper, a victim of a theory, and is thrown upon the pub-

lic for support; I say theory, because I do not believe it is yet established, that the disease in question is really so contagious. I therefore hope that the State Board of Health will not push the idea of isolation. I think it is quite proper for it to go as far as possible in gathering vital statistics upon this subject. I am with them in that. I think, also, that they should request the profession to send them, quietly, all the facts and data obtainable concerning cases of phthisis pulmonalis, but I think they should not, by virtue of any power granted them by the legislature, go any further and oppress this class of sufferers. They should not interfere with the practitioner for the present in managing these patients, because I think the Board has no proof, as yet, that the disease is, in the true sense, dangerous to public health especially when under intelligent management, and I think it is certainly a violation of propriety to class this disease with scarlet fever and diphtheria, two diseases which may attack anybody who gets within the environments of the affected person.

